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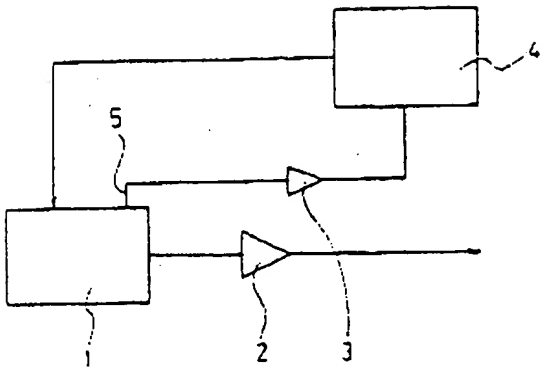
TITLE : EXPOSURE CONTROL CIRCUIT FOR SOLID-STATE IMAGE PICKUP ELEMENT



ABSTRACT : PURPOSE: To realize an electronic aperture in response to a real time by monitoring the change quantity of an overflow drain of a solid-state image pickup element during light accumulation period and discriminating it the approach of saturation when the change quantity starts increasing thereby reducing the light accumulation period.

CONSTITUTION: When a solid-state image pickup element 1 starts light accumulation and a charge of a picture element reaches the saturation state, the excess charge subject to photoelectric conversion afterward flows to a overflow drain 5. The flowed charge is subject to voltage conversion by a current voltage converter 3 and when the flowed charge exceeds a threshold value, a timing signal generating circuit 4 reduce the light accumulation period to stop light accumulation thereby controlling the solid-state image pickup element 1. Since the incident luminous quantity is detected simultaneously without awaiting the output of the picture signal, the electronic aperture mechanism in response in real time is realized.